MEASUREMENT TECHNOLOGIES

AMBIENT AIR AND METEOROLOGICAL MONITORING FOR TRUE GEOTHERMAL ENERGY COMPANY KILAUEA MIDDLE EAST RIFT ZONE, ISLAND OF HAWAII SEPTEMBER 1990 DATA REPORT

Submitted to:

Ms. Renee Taylor

True Geothermal Energy Company

Prepared by:

MEASUREMENT TECHNOLOGIES

October 1990

CN-137

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1.0 Introduction

Measurement Technologies has been contracted by True Geothermal Energy Company to conduct an air quality and meteorological monitoring program to support incremental exploration and development of the Kilauea Middle East Rift Zone Geothermal Resources Subzone (GRS), Puna District, Island of Hawaii. The data gathered in the monitoring program is being used in support of the exploration and possible development of the geothermal resource.

The monitoring program consists of two (2) monitoring sites. The first site (Site 1) is located in the Kaohe Homesteads area and the second site (Site 2) is located at the geothermal drilling and staging area D-1. The monitored parameters for each site are contained in Table 1-1. The sites are being operated consistent with the guidelines and requirements as outlined in the following documents:

- "Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)," U.S. EPA-450/4-80-012, November 1980.
- "Quality Assurance Handbook for Air Pollution Measurement Systems: Volume IV. Meteorological Measurements," U.S. EPA-600/4-82-060, February 1983.
- "Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II," Ambient Air Specific Methods, U.S. EPA-600/4-77-027a, May 1977.

As part of the monitoring program, Measurement will submit monthly and quarterly reports to True Geothermal Energy Company. The reports will contain the monitoring data, results of the quarterly quality assurance audits and results of quality control activities such as SO_2 and H_2S gas analyzer precision checks, level 1 and 2 checks and multipoint calibration results.

TABLE 1-1 Monitored Parameters

PARAMETER	SITE 1	SITE 2 (MET)
HYDROGEN SULFIDE (H_2S)	X	8 PLS
SULFUR DIOXIDE (SO_2)	X	X
WIND DIRECTION	X	X
WIND SPEED	X	X
VERTICAL WINDS		X
SIGMA THETA	X	X
SIGMA W		X
TEMPERATURE	X	
PRECIPITATION	X	
RAIN WATER (ANIONS & DISSOLVED METALS)	3 PLS	
METALS (ATMOSPHERIC PARTICULATE	X	
TOTAL SUSPENDED PARTICULATE (TSP)	X	
INHALEABLE PARTICULATES (PM-10)	X	
RADON		X

Section 2.0 of this report contains a operations narrative of significant events and activities that occurred during the month of September. Section 3.0 of this report contains the data collected during the month with graphical presentations and data capture summaries. The data is presented by site numbers and may also be referred to by name. Site 1 and 2 names are Air Quality/Met and Met Site, respectively.

2.0 Operations Summary

This section discusses the operations of the two monitoring sites and any significant events that may affect data quality. A downtime summary is also provided.

2.1 Monthly Operations Summary

Site 1 and 2 operations were routine for the month of September. Results of the radon samples exposed for the September period indicated radon levels below 1 pCi/l.

The rain water samples collected during September show insignificant levels of compounds and metals. The results of the analysis are contained in Section 3.0, Table 3-8 of this report.

The filter analyses for metals and particulate in September show insignificant concentrations and loadings for the compounds of interest in the program. The results are contained in Section 3.0, Tables 3-9 thru 3-14.

The continuous H_2S analyzer at Site 1 detected no significant levels of H_2S during September. Measured levels were below 3 parts per billion. The H_2S dosimeter badges located at the Drill Site 2 measured detectable concentrations of H_2S during September. Levels of H_2S were measured on September 24, 26 and 27, 1990. During the period from September 23rd to the 27th, there were abated releases of steam due to a blown well. H_2S dosimeter badges are located at all of the major Cardinal directions around the Drill Site. The highest level measured was downwind of the Drill Site on the badge located to the Southwest. The measured value on the Southwest badge was 90 parts per billion on the 26th. The other badges measured 15 parts per billion or less. The residential areas would not be impacted with winds out of the Southwest.

It might be noted that wind direction data showing zero's as a value, may correlate with a wind speed of zero. The wind direction is a vector average and if the wind speed is zero the wind direction is not calculated. The wind's are considered calm in these conditions and pollutants are in a stagnet condition, (not being transported).

2.2 Downtime Summary

This section presents the down time summary by site. Down time is considered any time an analyzer or sensor is not collecting valid data. Down time includes calibration time, data lost due to data validation criteria, audit time, time lost due to maintenance and malfunctions, etc.

Data capture at Site 1 was excellent in September, with all parameters exceeding 99 percent data capture. Site 2 also had excellent data capture in September with all parameters having 100 percent data capture for the seventh straight month.

2.3 Major Activities

No major activities were noted during the month of September.

3.0 Data Summary

Section 3.0 contains monthly summary reports and statistic tables for all of the major monitored parameters. In addition, graphical wind rose plots, rain water analyses results, total suspended (TSP) and inhaleable (PM-10) particulate loading and metals analyses are also contained in this section. The data and associated graphical presentations are presented by site. Each sites data is organized and presented as follows:

- Monthly Summary Report containing the hourly values for each day of the month. Dashes contained in the place of any data signifies that the data falls into a down time category previously discussed in Section 2.0. An asterisk sign in the wind sigma theta signifies calm wind conditions.

- A graphical wind rose presentation will immediately follow the Monthly Summary Report. The wind rose displays a graphical presentation of the wind speed and direction at each site.

- Summary Statistic Tables containing the highest and second highest measured values, lowest value, arithmetic mean and standard deviation, data recovery rates and percentile breakdowns of measured values.

- TSP and PM-10 particulate data showing loading of each filter along with the elemental analyses of each metals filter (Site 1 only).

- Rain water analyses results showing each sample collected and the results of the metals elemental and anion analyses (Site 1 only).

3.1 Air Quality/Meteorological Monitoring Data Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 WD (DEG) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0	0	0	0	0	0	0	0	0	0	95	123	125	130	126	128	118	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	340	336	350	353	356	354	355	356	5	24	0	0	0	0	0	0
3	0	0	0	0	0	0	0	317	345	339	350	11	20	33	----	62	8	8	41	0	0	0	0	0
4	318	328	0	0	0	0	0	323	334	337	346	33	7	16	355	357	359	10	0	0	18	3	0	90
5	0	349	29	0	358	48	0	346	28	6	7	22	5	8	29	15	23	22	29	41	0	0	0	0
6	0	0	0	323	293	0	306	330	0	328	320	336	337	14	7	358	352	357	0	0	0	0	0	0
7	0	0	0	0	313	0	0	341	342	343	347	347	348	350	355	349	348	347	334	308	307	313	301	312
8	298	270	265	265	265	237	332	314	313	337	354	343	136	334	337	332	99	164	90	330	348	325	314	303
9	313	322	320	320	322	323	329	333	340	338	346	347	349	351	352	353	354	340	326	315	308	277	292	309
10	316	235	172	245	313	316	322	338	342	343	350	347	334	345	338	352	349	346	349	326	305	291	297	284
11	248	275	294	302	317	324	315	314	334	341	348	352	347	350	350	349	350	348	340	323	329	315	307	313
12	322	320	313	307	317	309	313	327	340	346	341	344	351	352	349	325	324	340	324	328	312	303	309	304
13	294	306	302	304	302	301	304	323	335	347	346	352	349	350	6	82	8	31	5	334	319	322	313	319
14	310	310	301	319	307	311	317	329	344	340	340	349	350	350	351	353	346	348	349	348	348	345	341	342
15	342	332	341	335	336	332	341	339	341	349	349	349	346	347	352	350	352	346	342	343	341	339	338	333
16	338	333	337	335	330	345	349	328	332	343	345	350	348	352	348	351	344	347	341	339	331	325	322	318
17	321	331	345	347	342	338	333	341	341	342	348	348	344	345	342	348	346	345	343	337	338	344	336	343
18	351	331	323	316	322	312	319	326	328	337	338	340	338	359	355	351	352	1	2	9	353	112	11	342
19	323	325	322	317	309	310	302	310	324	331	342	325	333	342	76	127	126	121	122	126	123	123	120	127
20	127	126	122	118	124	125	121	124	120	122	123	123	123	127	125	121	123	121	139	147	116	128	135	0
21	0	0	0	228	0	0	321	309	323	3	357	1	94	9	29	14	349	347	350	348	341	341	332	340
22	336	329	316	315	312	306	299	327	345	351	346	355	350	353	347	350	334	323	321	327	330	325	318	309
23	306	311	308	319	301	298	299	309	335	349	15	26	7	81	117	21	66	32	93	21	58	0	348	349
24	330	317	297	309	321	314	306	318	336	350	357	358	353	1	356	348	351	345	340	319	308	306	301	293
25	288	276	290	296	297	282	283	303	330	341	347	350	342	9	59	327	345	322	310	314	307	299	308	298
26	304	297	300	305	309	301	308	331	337	348	356	349	354	349	352	347	352	350	343	6	353	331	313	285
27	315	307	311	309	317	322	326	329	339	349	347	355	359	351	355	354	350	349	346	338	328	332	325	321
28	317	318	328	331	327	328	333	----	335	342	341	346	352	344	349	341	349	346	349	348	341	336	329	321
29	319	315	334	332	334	323	331	325	320	330	339	343	343	341	355	38	301	338	337	335	303	289	265	244
30	276	228	245	213	286	241	238	149	314	329	327	330	5	121	107	351	329	322	317	325	321	316	310	311

Table 3-1. Wind Direction Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 WS (MPH) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	2.0	1.4	1.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.4	1.9	1.5	1.0	1.2	1.9	1.6	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	1.1	1.4	0.5	0.5	0.6	----	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.2	0.9	0.2	0.1	0.5	0.2	0.5	0.8	0.6	0.2	0.2	0.0	0.0	0.2	0.0	0.0
5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.0	0.3	0.9	1.1	0.7	1.4	1.1	0.7	0.7	1.0	0.4	0.2	0.1	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.4	0.1	0.0	0.1	0.1	0.0	0.5	2.6	1.2	1.8	0.5	0.6	0.9	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.1	0.0	0.0	3.9	6.3	6.4	6.2	5.5	5.1	4.0	3.1	4.0	3.6	3.0	2.5	0.9	1.0	0.9	1.3	1.6
8	1.8	0.5	0.1	0.3	0.2	0.3	0.7	1.0	1.5	2.2	2.9	2.0	0.9	0.7	1.4	2.0	0.3	0.1	0.0	2.0	0.7	3.1	2.8	0.9
9	1.2	2.7	3.3	2.7	3.6	4.4	3.6	4.8	6.2	7.4	6.6	6.9	4.7	6.2	5.1	3.2	4.0	3.0	3.7	3.3	2.2	0.5	0.6	1.7
10	0.7	0.4	0.7	0.0	1.5	1.5	4.5	4.5	4.3	4.9	2.8	4.6	5.4	3.8	3.3	2.0	2.2	1.3	1.0	2.0	1.8	0.5	0.6	0.1
11	0.3	0.1	1.5	1.5	2.8	1.7	0.9	2.4	4.7	5.8	5.3	4.2	4.6	5.8	5.0	6.5	6.2	6.1	4.9	5.6	5.1	4.9	2.9	3.7
12	2.3	3.4	3.8	3.2	4.9	3.4	4.0	6.1	7.5	6.6	7.1	5.1	5.1	5.1	2.5	4.2	3.9	2.0	1.9	2.5	2.5	1.6	1.2	1.9
13	1.3	1.6	1.0	0.9	0.8	0.8	1.5	3.5	5.0	3.6	3.4	3.5	4.6	3.4	1.6	1.3	1.7	0.6	1.6	4.0	2.1	3.4	2.5	2.7
14	2.6	2.2	0.6	2.6	0.9	0.6	0.9	4.0	2.1	1.8	3.3	3.7	3.7	4.6	4.6	5.1	4.7	5.1	5.4	5.2	5.5	5.3	5.4	5.0
15	5.1	5.6	4.9	5.3	5.6	6.3	5.1	5.8	7.3	7.3	7.0	7.2	7.4	7.5	6.3	7.0	6.7	6.7	6.9	7.1	7.5	7.1	7.4	6.6
16	5.0	5.7	5.0	5.6	5.9	4.6	3.8	6.1	6.6	7.0	6.2	6.6	6.3	6.6	6.9	7.0	7.3	6.9	6.4	6.3	6.6	5.5	4.3	3.3
17	2.8	1.7	4.2	5.1	6.4	6.7	7.4	7.2	8.9	9.5	8.9	10.4	11.1	11.6	11.7	11.1	10.3	9.7	8.8	8.0	8.2	7.0	6.0	3.0
18	2.8	5.9	5.3	4.7	3.4	3.4	3.2	4.8	6.1	6.3	4.0	4.9	5.3	2.4	3.2	3.2	2.4	1.9	1.9	1.4	1.6	1.2	0.4	1.7
19	2.6	2.0	2.6	1.5	2.3	2.0	1.8	2.2	3.7	4.7	4.0	2.0	2.1	2.9	0.5	3.1	3.5	2.8	1.9	2.2	3.2	2.3	1.7	2.4
20	2.3	3.2	1.8	1.0	2.5	3.1	3.3	3.6	3.6	3.2	2.6	3.2	3.2	2.5	2.2	2.9	2.4	1.5	0.1	0.1	0.1	0.2	0.1	0.0
21	0.0	0.0	0.0	0.2	0.0	0.0	1.0	1.3	2.5	0.4	1.0	1.6	1.6	1.1	1.2	1.7	2.1	2.7	3.4	4.0	4.5	4.7	5.0	4.5
22	4.0	4.6	2.9	2.9	3.0	2.2	1.2	2.7	3.9	2.5	2.9	2.2	3.4	3.7	4.9	3.6	4.9	4.4	4.3	4.0	3.3	4.3	4.0	2.2
23	2.7	3.3	2.6	2.9	2.1	1.4	0.9	2.5	4.2	2.6	1.6	1.4	2.1	1.6	2.2	1.2	1.2	1.4	0.9	0.3	0.4	1.4	2.6	3.8
24	4.0	3.5	0.8	1.1	4.3	3.5	2.1	2.6	5.4	4.6	2.7	2.4	2.9	3.1	3.7	3.4	4.0	3.9	2.9	1.0	1.3	1.9	0.6	0.5
25	0.4	0.2	0.6	0.3	0.3	0.2	0.3	1.1	2.8	3.7	3.5	4.2	4.5	1.5	0.9	2.8	2.5	1.7	2.8	2.2	1.7	0.7	2.1	1.2
26	1.6	1.0	1.4	2.1	2.5	1.0	2.2	5.0	6.7	5.6	3.8	4.9	5.2	5.1	4.0	3.7	2.8	3.9	2.7	1.7	2.7	3.6	2.2	0.7
27	2.2	1.4	1.1	1.4	2.8	4.2	3.8	4.7	3.5	3.7	4.2	3.2	3.0	3.7	4.0	3.5	5.6	5.3	4.6	4.4	4.2	4.7	4.6	5.2
28	4.3	4.3	5.8	5.2	5.4	5.8	6.1	----	7.5	7.5	9.0	6.9	5.9	8.2	6.5	7.7	6.4	6.8	5.7	5.6	2.5	3.9	3.8	4.9
29	4.3	3.4	3.8	4.5	4.6	5.7	5.3	6.2	5.6	5.3	5.3	4.9	3.7	2.9	1.2	0.6	0.3	0.7	1.5	1.4	1.2	0.3	0.2	0.0
30	0.4	0.2	0.1	0.1	0.5	0.1	0.1	0.2	1.1	2.3	2.8	3.5	1.6	2.2	1.4	1.4	3.5	2.8	2.7	2.1	0.1	2.4	3.4	2.9

Table 3-2. Wind Speed Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 Sigθ1 (deg) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	97.6	97.6	97.6	97.6	97.6	97.6	97.6	116.8	85.7	115.9	79.4	49.9	39.5	54.7	54.9	52.3	71.8	106.4	57.0	64.9	46.5	48.9	78.5	63.6
2	42.7	39.6	31.1	45.2	41.1	61.9	62.2	69.2	29.5	21.9	42.1	49.6	57.3	60.9	52.7	57.6	59.9	55.4	35.2	32.6	37.4	40.1	38.3	68.1
3	68.6	86.0	64.6	71.7	78.7	74.0	57.2	41.2	24.5	25.9	42.9	68.2	67.9	80.5	----	84.0	56.6	53.2	54.2	49.5	54.0	50.3	55.3	44.6
4	49.2	42.2	46.5	57.2	50.3	42.2	41.9	17.5	19.0	32.9	67.6	55.3	60.4	78.0	64.6	56.1	53.4	55.4	52.6	41.1	59.4	56.6	70.4	76.3
5	31.4	29.3	75.0	71.9	51.2	72.4	30.8	38.2	76.2	60.4	69.6	73.0	65.4	70.7	79.2	71.0	70.2	73.6	68.7	70.1	43.0	76.9	91.2	71.7
6	74.7	80.7	100.5	51.1	59.4	62.6	45.4	26.5	68.2	42.8	24.6	31.7	44.0	62.9	61.6	58.2	54.5	44.6	35.1	58.7	69.5	74.8	85.8	53.9
7	66.3	75.9	108.8	91.5	54.3	63.2	61.1	19.8	24.9	22.7	28.9	35.5	46.2	56.9	68.7	49.6	46.3	49.3	18.0	50.9	59.9	62.1	48.7	61.5
8	55.1	65.5	54.8	44.5	54.8	52.7	65.9	54.0	31.3	42.3	44.8	39.0	60.2	69.1	58.4	33.1	70.7	70.1	92.4	36.3	67.4	25.7	21.0	58.1
9	29.8	31.3	34.6	40.0	17.5	15.5	17.9	16.8	21.8	17.6	31.9	30.1	47.8	34.1	44.0	62.9	38.3	46.7	21.5	31.5	42.6	68.2	48.9	30.2
10	48.2	64.9	106.3	82.5	47.4	23.8	15.9	20.2	23.8	29.7	53.1	34.1	21.4	26.7	27.8	53.1	40.8	61.0	32.4	17.6	22.5	33.6	64.2	60.0
11	66.4	43.5	28.5	37.5	30.9	39.1	36.1	20.3	20.8	21.9	36.6	53.4	48.4	43.7	45.6	37.4	38.2	29.1	19.7	14.8	21.8	24.3	24.5	22.7
12	48.1	31.9	23.8	25.9	20.8	29.1	24.3	17.7	22.0	28.0	25.4	44.4	42.7	41.1	59.8	17.0	24.2	29.7	19.3	20.9	37.1	41.0	63.1	36.6
13	61.5	42.8	38.0	40.0	62.2	53.4	33.0	19.8	20.4	24.8	44.9	59.2	41.2	50.3	71.3	69.8	70.7	77.6	63.8	21.9	36.8	20.2	24.6	22.7
14	26.8	32.8	51.2	55.4	41.1	50.9	26.7	19.0	51.4	66.3	42.7	30.6	55.5	48.8	51.1	45.0	44.0	37.4	29.6	27.0	23.7	19.9	20.3	20.2
15	21.6	25.7	22.4	17.6	18.0	17.0	19.7	18.8	18.8	29.3	34.8	38.8	33.3	35.2	39.3	31.9	30.4	22.6	23.8	27.8	19.8	18.1	19.2	16.8
16	20.8	19.6	18.6	18.1	17.0	26.8	49.8	16.3	16.6	24.3	29.7	35.3	39.7	38.8	32.4	33.5	24.8	21.9	19.1	20.8	18.2	18.1	24.2	23.8
17	38.4	32.6	29.6	25.9	21.6	19.1	18.1	20.5	21.6	24.5	28.7	28.7	24.1	24.8	24.5	25.9	24.7	24.1	21.8	19.8	20.3	25.6	20.8	48.8
18	48.8	16.9	19.7	22.6	25.8	25.3	21.4	22.7	22.5	19.8	47.4	32.4	24.2	64.1	59.1	53.1	65.7	72.0	58.6	75.6	63.7	69.2	55.5	35.7
19	22.5	35.2	32.3	58.1	28.2	34.1	32.6	29.0	21.9	17.7	26.3	30.9	36.6	43.2	74.6	53.3	49.2	40.4	48.4	51.0	43.3	45.2	51.0	45.1
20	63.2	50.3	62.5	71.5	49.0	46.6	49.6	49.0	48.2	44.6	47.4	49.2	42.6	46.0	48.1	47.6	51.5	40.2	77.9	93.1	95.4	61.1	71.2	97.6
21	125.1	97.6	97.6	80.3	108.3	89.3	46.3	31.3	31.5	75.6	64.1	64.0	65.8	81.7	80.6	68.2	56.4	33.7	25.4	21.4	20.8	19.1	17.5	21.0
22	19.3	15.3	18.0	18.7	18.6	21.2	36.2	25.9	22.1	42.4	46.7	49.6	42.3	40.6	34.6	39.3	20.8	15.3	17.4	41.1	27.4	23.2	26.3	27.1
23	22.9	20.1	20.2	22.1	26.3	35.7	39.0	21.6	25.7	50.0	70.9	71.0	61.3	77.5	67.1	71.3	77.2	73.9	79.7	77.9	78.9	52.8	39.1	23.5
24	18.6	25.4	61.9	60.8	22.3	28.1	31.8	26.8	20.3	31.1	61.1	65.5	65.3	63.8	54.4	52.8	42.9	33.3	24.3	23.6	20.5	24.3	35.9	26.4
25	33.7	40.8	24.5	52.5	46.0	75.0	52.1	38.8	23.4	32.9	28.5	38.5	26.4	69.0	68.2	27.9	39.5	39.0	34.5	40.5	37.2	52.6	34.0	37.8
26	34.4	31.1	26.8	19.9	18.7	26.2	23.2	15.9	20.3	27.4	52.7	46.2	45.6	39.4	53.4	50.1	47.6	26.4	30.9	62.2	48.5	25.6	28.1	34.6
27	42.2	46.2	36.4	29.1	18.7	15.5	18.5	17.2	28.6	40.0	48.5	58.3	63.0	58.8	44.3	47.4	31.9	28.4	20.2	19.4	15.7	22.1	18.6	16.3
28	17.4	19.6	16.5	17.7	16.0	16.3	16.8	----	17.9	21.3	22.4	27.5	37.9	26.5	36.1	24.7	25.6	25.7	30.1	24.3	25.2	22.1	17.0	14.6
29	16.8	19.6	20.1	17.9	18.1	16.3	18.1	17.1	18.8	18.6	31.5	22.4	30.4	37.7	60.4	68.0	72.5	64.9	38.5	37.7	28.4	47.2	51.4	51.2
30	42.9	40.8	42.3	75.4	41.5	54.0	49.3	91.6	36.1	27.6	30.6	23.7	54.3	60.3	77.0	64.2	21.3	21.8	17.9	21.2	82.7	24.8	19.3	24.9

Table 3-3. Sigma Theta Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 TEMP (DEG F) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	67.3	66.7	66.0	65.8	66.2	66.5	67.3	71.9	77.1	78.6	80.5	81.1	81.1	81.1	80.9	79.2	76.4	75.3	73.7	72.9	72.6	72.0	72.0	71.9
2	71.6	71.2	70.9	70.4	70.5	70.2	70.1	71.0	74.2	75.1	77.4	79.6	79.4	79.8	79.5	78.2	76.3	73.9	72.2	71.3	71.1	70.8	70.8	70.8
3	70.5	70.2	69.3	69.1	69.0	68.8	70.3	73.9	75.0	75.6	77.5	79.1	78.4	79.3	----	78.3	77.5	76.4	72.9	70.3	70.4	70.6	70.5	70.4
4	70.5	70.3	70.4	69.8	69.9	70.2	70.9	73.4	75.0	77.8	81.1	77.7	80.2	81.0	80.9	80.2	77.6	75.4	72.8	72.0	72.1	72.4	72.4	72.1
5	71.7	71.4	70.7	69.9	70.0	70.4	70.9	71.8	73.8	74.7	76.2	76.1	77.0	76.1	75.6	75.2	74.9	73.4	71.4	70.6	70.1	70.0	70.0	69.5
6	69.1	68.9	68.2	68.1	67.3	66.6	66.8	69.8	69.6	71.9	72.8	71.9	75.5	77.3	77.3	76.9	75.0	73.0	70.1	68.5	68.1	67.6	67.1	67.3
7	66.4	66.0	65.6	65.3	65.8	65.0	66.0	72.7	73.9	75.0	76.8	77.9	78.0	79.2	78.7	78.5	77.9	74.4	71.1	69.7	68.3	68.1	67.6	67.1
8	66.0	65.8	65.9	65.8	65.7	65.7	66.7	68.5	70.4	74.1	75.1	74.6	75.9	74.4	73.5	73.3	75.0	71.1	70.8	70.5	69.9	69.4	69.2	69.2
9	68.7	67.9	67.1	67.2	67.4	67.3	67.7	69.4	71.2	73.4	75.4	76.6	78.0	77.3	77.5	74.9	75.3	71.7	68.2	66.6	65.8	66.2	66.6	66.7
10	66.7	67.0	66.8	66.7	66.6	66.5	66.9	67.3	67.6	67.3	69.7	68.5	70.4	70.4	71.7	72.0	71.8	70.6	69.3	68.2	67.6	66.7	66.5	65.6
11	65.2	64.7	64.4	65.3	64.9	64.9	65.4	67.3	71.3	73.3	74.8	76.6	76.9	76.8	76.8	76.9	75.9	72.3	69.5	68.2	67.3	65.8	65.7	66.2
12	65.6	65.6	65.7	66.1	65.7	64.9	66.0	71.3	73.3	74.6	75.8	75.3	77.9	77.1	71.7	70.9	70.7	70.7	70.3	70.1	68.8	67.9	67.1	66.5
13	66.6	66.5	66.8	67.4	67.4	67.4	68.0	72.7	73.9	73.3	76.2	78.8	75.4	75.9	75.2	74.7	75.7	73.4	72.1	70.7	69.8	69.5	69.4	68.8
14	68.5	68.3	68.7	68.5	68.2	68.4	68.8	69.6	70.4	72.5	70.9	72.8	74.8	76.3	77.0	75.3	74.0	73.3	71.5	71.0	70.7	70.6	70.4	70.0
15	70.1	69.7	69.6	69.4	69.3	69.4	69.5	70.5	72.3	74.7	76.6	77.0	77.6	77.1	77.1	74.8	73.0	72.1	71.3	71.6	71.2	71.1	70.4	69.3
16	69.4	69.8	69.8	70.0	70.0	69.7	69.4	69.2	71.2	73.0	73.4	75.7	76.2	77.6	77.9	77.6	76.4	74.2	72.9	71.4	70.6	70.3	70.1	70.3
17	70.7	71.1	71.9	71.9	72.0	71.7	71.6	71.7	72.4	72.8	74.6	76.0	76.7	77.4	77.8	76.3	74.8	73.0	71.7	70.7	71.0	70.7	69.3	69.1
18	69.5	69.2	68.2	67.7	68.0	67.8	68.1	69.5	71.6	72.1	72.3	72.0	73.4	76.2	74.9	74.0	72.3	72.0	71.9	71.8	71.6	69.9	68.6	70.0
19	70.1	69.8	69.5	69.4	69.0	68.5	68.4	69.4	72.1	71.8	70.8	71.5	72.0	71.9	72.1	72.4	72.5	72.3	72.1	72.1	72.1	72.1	71.9	71.9
20	71.9	70.9	70.9	71.6	71.8	72.1	72.1	72.1	72.6	73.0	73.7	74.8	74.8	76.1	77.1	77.1	77.1	74.0	71.9	70.8	71.5	71.8	71.4	70.7
21	70.8	70.6	70.2	70.4	69.8	69.8	70.0	71.2	73.5	77.6	77.5	77.6	74.9	76.1	74.4	73.8	73.9	72.0	70.7	70.2	69.9	69.6	69.4	69.4
22	69.4	69.1	68.3	68.1	68.1	67.6	67.8	72.0	72.4	72.9	73.2	74.3	74.6	74.1	75.8	72.8	71.8	70.4	69.5	69.5	69.2	68.0	67.2	66.9
23	66.5	66.7	66.3	66.2	66.4	66.2	66.7	69.1	73.6	75.8	78.2	78.5	79.9	79.8	78.7	78.2	79.2	74.5	70.8	70.3	69.8	69.3	68.6	67.8
24	67.3	66.8	66.6	66.9	66.4	66.1	66.6	69.8	73.5	74.5	75.6	76.8	78.2	78.7	78.0	77.5	77.1	72.2	70.2	69.2	68.7	68.5	68.3	67.9
25	67.4	67.5	66.9	66.9	67.4	66.8	65.8	69.2	72.0	73.4	74.2	73.6	72.4	74.3	70.4	71.7	71.6	67.6	67.2	67.1	67.0	66.8	66.9	66.4
26	66.3	65.9	65.7	65.3	65.5	65.8	66.7	72.6	73.9	75.4	77.7	77.4	77.6	78.1	78.4	77.4	74.8	72.1	69.6	69.9	69.2	68.4	68.0	68.0
27	68.0	67.9	67.8	67.6	67.8	67.9	68.3	69.8	69.3	71.9	74.8	77.1	76.9	75.6	74.0	73.1	73.1	72.0	70.1	69.2	68.5	68.1	67.6	67.3
28	66.5	66.7	67.1	67.4	67.0	67.1	67.6	----	70.0	71.0	72.5	70.3	71.2	72.4	70.1	71.9	72.1	70.8	69.8	69.4	69.1	69.0	68.5	68.3
29	68.2	68.0	67.4	66.7	66.1	65.9	66.3	66.6	67.5	68.9	70.0	71.4	73.2	72.1	72.0	72.6	71.3	72.2	71.8	71.2	70.3	69.6	69.3	68.3
30	67.9	67.2	67.1	67.6	67.4	67.1	67.2	67.9	70.6	70.9	71.2	75.3	76.7	70.6	69.2	69.4	69.9	70.1	69.7	68.9	67.6	67.4	67.4	67.7

Table 3-4. Ambient Temperature Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 RAIN (INCH) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.01	0.02	0.14	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	----	0.00	0.00	0.00	0.04	0.02	0.00	0.04	0.27	0.06
4	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.09	0.06	0.01	0.01	0.01
5	0.00	0.00	0.08	0.02	0.06	0.02	0.00	0.02	0.07	0.01	0.00	0.02	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.02	0.00	0.03	0.00	0.00	0.00	0.00	0.03	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.05	0.32	0.01	0.06
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.04	0.05	0.26	0.17	0.03	0.00	0.17	0.00	0.15	0.09	0.01	0.00	0.02
9	0.09	0.58	0.32	0.04	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.08	0.03	0.00	0.00	0.02	0.00
10	0.00	0.00	0.06	0.13	0.09	0.23	0.03	0.05	0.06	0.29	0.02	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.01	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.02	0.00	0.00
12	0.30	0.12	0.03	0.00	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.17	0.00	0.00	0.00	0.02	0.00	0.06	0.02
13	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.01
14	0.02	0.00	0.04	0.09	0.01	0.00	0.01	0.04	0.05	0.05	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
15	0.00	0.07	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.02	0.00	0.01	0.00	0.03	0.01
16	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.02	0.05	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.01	0.05	0.09	0.01
17	0.60	0.05	0.01	0.03	0.02	0.00	0.01	0.06	0.01	0.15	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.07	0.10	0.03	0.03	0.45
18	0.00	0.01	0.00	0.00	0.03	0.00	0.02	0.00	0.10	0.00	0.07	0.23	0.00	0.02	0.00	0.01	0.18	0.03	0.00	0.00	0.02	0.12	0.09	0.00
19	0.00	0.05	0.05	0.02	0.15	0.01	0.00	0.01	0.00	0.02	0.33	0.13	0.09	0.15	0.51	0.22	0.01	0.03	0.02	0.19	0.02	0.02	0.16	0.10
20	0.37	0.37	0.03	0.00	0.03	0.06	0.01	0.30	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.01	0.02	0.00	0.00	0.01	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.12	0.02	0.00
23	0.00	0.00	0.00	0.03	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.11
24	0.09	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.08	0.00	0.02	0.03	0.01	0.04	0.02	0.00	0.00	0.00
26	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.03	0.00	0.00
27	0.15	0.02	0.02	0.05	0.07	0.00	0.01	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
28	0.00	0.01	0.00	0.00	0.00	0.00	0.00	----	0.00	0.00	0.00	0.12	0.04	0.02	0.07	0.00	0.00	0.07	0.00	0.00	0.05	0.00	0.00	0.01
29	0.00	0.00	0.00	0.03	0.11	0.02	0.05	0.02	0.00	0.01	0.08	0.01	0.06	0.28	0.34	0.34	0.19	0.00	0.00	0.01	0.00	0.00	0.00	0.00
30	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.22	0.04	0.00	0.01	0.26	0.09	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00

Table 3-5. Precipitation Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 SO2 (PPB) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	----	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	----	----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	----	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	----	----	----	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	1	----	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	----	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 3-6. Sulfur Dioxide Monthly Summary Site 1

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 1 H2S (PPB) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	2	2	1	2	2	1	2	1	0	0	0	----	----	1	0	0	0	0	0	1	0	0	0	0
2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	----	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8	1	1	1	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	1	1	1	0	0	0	1	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
13	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
15	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	----	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
21	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
23	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
25	1	0	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
26	1	1	1	2	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
28	1	1	1	0	1	1	1	----	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
29	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30	1	1	1	1	1	0	1	2	0	0	----	----	3	0	0	0	0	0	0	1	1	1	1	1

Table 3-7. Hydrogen Sulfide Monthly Summary Site 1

HECO ENVIRONMENTAL LABORATORY
ENVIRONMENTAL DEPARTMENT
Rainwater Analysis Report

Report Date: October 16, 1990

Site: True/Geothermal
Pahoa, Hawaii

Sample Date: 09/01/90 - 10/01/90
(Received 10/04/90)

Parameter	Conc. (ug/l) True 14(1-3)
pH	4.30
Aluminum	<10.0
Arsenic	<5.0
Barium	<20.0
Cadmium	<1.0
Chromium	<4.0
Copper	<10.0
Iron	<10.0
Lead	<5.0
Magnesium	196
Manganese	<2.0
Mercury	<0.50
Selenium	<5.0
Silver	<2.0
Sodium	1,870
Zinc	<10.0
Bromide	<50
Chloride	3,110
Fluoride	51
Phosphate	<61
Nitrite	6
Nitrate	<13
Sulfate	935
Sulfite	<150

Analyzed by: G. Kitsuwa/E. Wong

Approved by:
George Yasutome
Senior Chemist

Table 3-8. Rain Water Analyses Monthly Summary Site 1
09/01/90-10/01/90

295/01-012 PROTOCOL: 5 SA

SAMPLE ID: M1621
PARTICLE SIZE: T
ANALYSIS ID: M1621
09/02/90
EXPOSED AREA: 12.80 SQUARE CM
MASS OF DEPOSIT: 4.+- 10. MICROGRAMS

ELEMENT	UG/CM2		UG/FILTER	
AL	.0015+-	.0043	.019+-	.055
SI	.0146+-	.0035	.187+-	.045
P	.0000+-	.0017	.000+-	.022
S	.0285+-	.0070	.365+-	.090
CL	.2959+-	.0338	3.788+-	.433
K	.0121+-	.0023	.155+-	.029
CA	.0103+-	.0017	.132+-	.022
TI	.0021+-	.0006	.027+-	.008
V	.0010+-	.0004	.013+-	.005
CR	.0014+-	.0004	.018+-	.005
MN	.0000+-	.0004	.000+-	.005
FE	.0199+-	.0015	.255+-	.019
NI	.0003+-	.0004	.004+-	.005
CU	.0059+-	.0005	.076+-	.006
ZN	.0019+-	.0004	.024+-	.005
GA	.0001+-	.0003	.001+-	.004
AS	.0000+-	.0009	.000+-	.012
SE	.0000+-	.0004	.000+-	.005
BR	.0006+-	.0004	.008+-	.005
RB	.0000+-	.0006	.000+-	.008
SR	.0000+-	.0007	.000+-	.009
Y	.0000+-	.0008	.000+-	.010
ZR	.0000+-	.0012	.000+-	.015
MO	.0000+-	.0016	.000+-	.020
PD	.0000+-	.0029	.000+-	.037
AG	.0000+-	.0040	.000+-	.051
CD	.0021+-	.0052	.027+-	.067
IN	.0000+-	.0055	.000+-	.070
SN	.0025+-	.0067	.032+-	.086
SB	.0186+-	.0093	.238+-	.119
BA	.0309+-	.0321	.396+-	.411
LA	.0000+-	.0479	.000+-	.613
HG	.0000+-	.0006	.000+-	.008
PB	.0015+-	.0016	.019+-	.020

Table 3-9. Metals Filter Analyses September 2, 1990 Site 1

295/01-012 PROTOCOL: 5 SA

SAMPLE ID: M1622
PARTICLE SIZE: T
ANALYSIS ID: M1622
09/08/90
EXPOSED AREA: 12.80 SQUARE CM
MASS OF DEPOSIT: 0.+- 10. MICROGRAMS

ELEMENT	UG/CM2		UG/FILTER	
AL	.0098+-	.0040	.125+-	.051
SI	.0083+-	.0028	.106+-	.036
P	.0000+-	.0016	.000+-	.020
S	.0089+-	.0056	.114+-	.072
CL	.0769+-	.0098	.984+-	.125
K	.0021+-	.0016	.027+-	.020
CA	.0000+-	.0010	.000+-	.013
TI	.0001+-	.0005	.001+-	.006
V	.0002+-	.0004	.003+-	.005
CR	.0013+-	.0004	.017+-	.005
MN	.0000+-	.0004	.000+-	.005
FE	.0147+-	.0012	.188+-	.015
NI	.0004+-	.0004	.005+-	.005
CU	.0044+-	.0005	.056+-	.006
ZN	.0002+-	.0004	.003+-	.005
GA	.0000+-	.0003	.000+-	.004
AS	.0002+-	.0009	.003+-	.012
SE	.0008+-	.0003	.010+-	.004
BR	.0007+-	.0004	.009+-	.005
RB	.0000+-	.0006	.000+-	.008
SR	.0000+-	.0007	.000+-	.009
Y	.0000+-	.0008	.000+-	.010
ZR	.0008+-	.0012	.010+-	.015
MO	.0000+-	.0015	.000+-	.019
PD	.0020+-	.0027	.026+-	.035
AG	.0000+-	.0040	.000+-	.051
CD	.0047+-	.0052	.060+-	.067
IN	.0091+-	.0054	.116+-	.069
SN	.0092+-	.0067	.118+-	.086
SB	.0005+-	.0093	.006+-	.119
BA	.0000+-	.0321	.000+-	.411
LA	.0000+-	.0473	.000+-	.605
HG	.0000+-	.0006	.000+-	.008
PB	.0012+-	.0016	.015+-	.020

Table 3-10. Metals Filter Analyses September 8, 1990 Site 1

295/01-012 PROTOCOL: 5 SA

SAMPLE ID: M1623
PARTICLE SIZE: T
ANALYSIS ID: M1623
09/14/90
EXPOSED AREA: 12.80 SQUARE CM
MASS OF DEPOSIT: 15.+- 10. MICROGRAMS

ELEMENT	UG/CM2	UG/FILTER	PERCENT
AL	.0000+- .0043	.000+- .055	.0000+- .3669
SI	.0012+- .0028	.015+- .036	.1024+- .2485
P	.0000+- .0018	.000+- .023	.0000+- .1536
S	.0474+- .0084	.607+- .108	4.0448+- 2.7902
CL	.4598+- .0520	5.885+- .666	39.2363+-26.5312
K	.0125+- .0022	.160+- .028	1.0667+- .7355
CA	.0115+- .0018	.147+- .023	.9813+- .6720
TI	.0008+- .0005	.010+- .006	.0683+- .0624
V	.0010+- .0004	.013+- .005	.0853+- .0663
CR	.0022+- .0004	.028+- .005	.1877+- .1297
MN	.0000+- .0004	.000+- .005	.0000+- .0341
FE	.0142+- .0012	.182+- .015	1.2117+- .8143
NI	.0008+- .0005	.010+- .006	.0683+- .0624
CU	.0070+- .0006	.090+- .008	.5973+- .4015
ZN	.0018+- .0004	.023+- .005	.1536+- .1079
GA	.0004+- .0003	.005+- .004	.0341+- .0343
AS	.0000+- .0010	.000+- .013	.0000+- .0853
SE	.0000+- .0004	.000+- .005	.0000+- .0341
BR	.0010+- .0005	.013+- .006	.0853+- .0711
RB	.0012+- .0006	.015+- .008	.1024+- .0853
SR	.0004+- .0008	.005+- .010	.0341+- .0720
Y	.0000+- .0008	.000+- .010	.0000+- .0683
ZR	.0012+- .0012	.015+- .015	.1024+- .1231
MO	.0024+- .0016	.031+- .020	.2048+- .1931
PD	.0026+- .0030	.033+- .038	.2219+- .2957
AG	.0000+- .0042	.000+- .054	.0000+- .3584
CD	.0012+- .0056	.015+- .072	.1024+- .4827
IN	.0002+- .0058	.003+- .074	.0171+- .4951
SN	.0013+- .0071	.017+- .091	.1109+- .6104
SB	.0173+- .0098	.221+- .125	1.4763+- 1.2915
BA	.0000+- .0336	.000+- .430	.0000+- 2.8672
LA	.0000+- .0496	.000+- .635	.0000+- 4.2325
HG	.0000+- .0006	.000+- .008	.0000+- .0512
PB	.0000+- .0017	.000+- .022	.0000+- .1451

Table 3-11. Metals Filter Analyses September 14, 1990 Site 1

295/01-012 PROTOCOL: 5 SA

SAMPLE ID: M1624
PARTICLE SIZE: T
ANALYSIS ID: M1624
09/20/90
EXPOSED AREA: 12.80 SQUARE CM
MASS OF DEPOSIT: 0.+- 10. MICROGRAMS

ELEMENT	UG/CM2		UG/FILTER	
AL	.0000+-	.0041	.000+-	.052
SI	.0035+-	.0028	.045+-	.036
P	.0000+-	.0018	.000+-	.023
S	.0180+-	.0065	.230+-	.083
CL	.2364+-	.0271	3.026+-	.347
K	.0094+-	.0019	.120+-	.024
CA	.0065+-	.0014	.083+-	.018
TI	.0008+-	.0005	.010+-	.006
V	.0002+-	.0004	.003+-	.005
CR	.0012+-	.0004	.015+-	.005
MN	.0000+-	.0004	.000+-	.005
FE	.0133+-	.0012	.170+-	.015
NI	.0008+-	.0004	.010+-	.005
CU	.0058+-	.0005	.074+-	.006
ZN	.0010+-	.0004	.013+-	.005
GA	.0000+-	.0003	.000+-	.004
AS	.0000+-	.0009	.000+-	.012
SE	.0001+-	.0004	.001+-	.005
BR	.0009+-	.0005	.012+-	.006
RB	.0009+-	.0006	.012+-	.008
SR	.0002+-	.0008	.003+-	.010
Y	.0008+-	.0008	.010+-	.010
ZR	.0013+-	.0013	.017+-	.017
MO	.0000+-	.0016	.000+-	.020
PD	.0000+-	.0029	.000+-	.037
AG	.0070+-	.0042	.090+-	.054
CD	.0000+-	.0055	.000+-	.070
IN	.0070+-	.0058	.090+-	.074
SN	.0140+-	.0070	.179+-	.090
SB	.0000+-	.0096	.000+-	.123
BA	.0431+-	.0341	.552+-	.436
LA	.0052+-	.0502	.067+-	.643
HG	.0005+-	.0006	.006+-	.008
PB	.0000+-	.0017	.000+-	.022

Table 3-12. Metals Filter Analyses September 20, 1990 Site 1

MEASUREMENT TECHNOLOGIES

8" X 10" FILTER GRAVIMETRIC REPORT

Run Day	NEA ID.	FILTER TYPE	TARE WT. GRAMS	GROSS WT. GRAMS	NET WT. MILLIGRAMS
09/02/90	M1655	TSP	4.4268	4.4436	16.80
09/02/90	M1656	PM-10	4.4339	4.4486	14.70
09/08/90	M1657	TSP	4.4397	4.4540	14.30
09/08/90	M1658	PM-10	4.4289	4.4412	12.30
09/14/90	M1859	TSP	4.4045	4.4274	22.90
09/14/90	M1860	PM-10	4.3894	4.4068	17.40
09/20/90	M1861	TSP	4.3939	4.4117	17.80
09/20/90	M1862	PM-10	4.3840	4.3999	15.90
09/26/90	M1863	TSP	4.4370	4.4516	14.60
09/26/90	M1864	PM-10	4.4078	4.4192	11.40

Table 3-14. Total Suspended Particulates (TSP) and Inhaleable Particulates (PM-10) Loading Monthly Summary Site 1

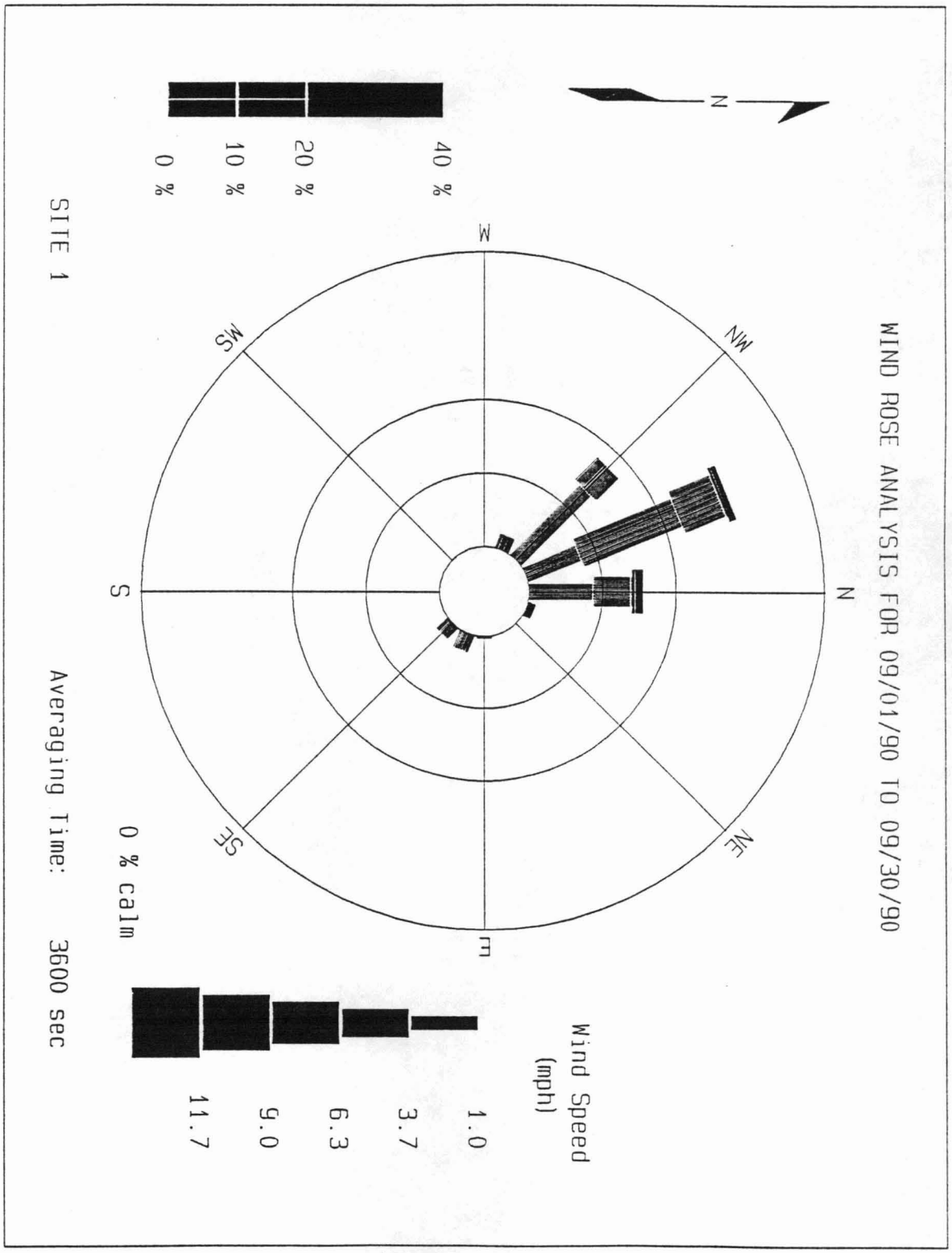

Figure 3-1. Wind Rose Analysis Site 1

WD (DEG) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	359.	09/18/90	13:00:00		
Second Highest:	359.	09/27/90	12:00:00		
Lowest Value:	0.	09/01/90	00:00:00		
Arithmetic Mean:	250.			10.000 Percentile:	0.
Standard Deviation:	133.			20.000 Percentile:	90.
				30.000 Percentile:	277.
Geometric Mean:	120.			40.000 Percentile:	309.
Standard Deviation:	7.			50.000 Percentile:	321.
				60.000 Percentile:	330.
Valid Data:	718			70.000 Percentile:	340.
Invalid Data:	2			80.000 Percentile:	346.
Missing Data:	0			90.000 Percentile:	350.
Data Recovery:	99.72%			100.000 Percentile:	359.

SITE 1 Averaging Time: 3600 sec

Table 3-15. Wind Direction Summary Statistics Site 1

WS (MPH) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	11.7	09/17/90	14:00:00		
Second Highest:	11.6	09/17/90	13:00:00		
Lowest Value:	0.0	09/01/90	00:00:00		
Arithmetic Mean:	2.7			10.000 Percentile:	0.0
Standard Deviation:	2.4			20.000 Percentile:	0.3
				30.000 Percentile:	1.0
Geometric Mean:	1.9			40.000 Percentile:	1.6
Standard Deviation:	3.0			50.000 Percentile:	2.4
				60.000 Percentile:	3.1
Valid Data:	718			70.000 Percentile:	3.9
Invalid Data:	2			80.000 Percentile:	4.9
Missing Data:	0			90.000 Percentile:	6.2
Data Recovery:	99.72%			100.000 Percentile:	11.7

SITE 1 Averaging Time: 3600 sec

Table 3-16. Wind Speed Summary Statistics Site 1

Sigé1 (deg) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	125.1	09/21/90	00:00:00
Second Highest:	116.8	09/01/90	07:00:00
Lowest Value:	14.6	09/28/90	23:00:00

Arithmetic Mean:	43.0	10.000 Percentile:	19.3
Standard Deviation:	21.2	20.000 Percentile:	22.5
		30.000 Percentile:	26.4
Geometric Mean:	38.1	40.000 Percentile:	32.4
Standard Deviation:	1.6	50.000 Percentile:	39.3
		60.000 Percentile:	46.2
Valid Data:	718	70.000 Percentile:	53.1
Invalid Data:	2	80.000 Percentile:	61.9
Missing Data:	0	90.000 Percentile:	71.5
Data Recovery:	99.72%	100.000 Percentile:	125.1

SITE 1 Averaging Time: 3600 sec

Table 3-17. Sigma Theta Summary Statistics Site 1

TEMP (DEG F) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	81.1	09/01/90	12:00:00
Second Highest:	81.1	09/01/90	13:00:00
Lowest Value:	64.4	09/11/90	02:00:00

Arithmetic Mean:	71.3	10.000 Percentile:	66.7
Standard Deviation:	3.8	20.000 Percentile:	67.7
		30.000 Percentile:	69.1
Geometric Mean:	71.2	40.000 Percentile:	69.9
Standard Deviation:	1.1	50.000 Percentile:	70.7
		60.000 Percentile:	71.8
Valid Data:	718	70.000 Percentile:	72.8
Invalid Data:	2	80.000 Percentile:	74.8
Missing Data:	0	90.000 Percentile:	77.1
Data Recovery:	99.72%	100.000 Percentile:	81.1

SITE 1 Averaging Time: 3600 sec

Table 3-18 Ambient Temperature Summary Statistics Site 1

RAIN (INCH) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	0.60	09/17/90	00:00:00
Second Highest:	0.58	09/09/90	01:00:00
Lowest Value:	0.00	09/01/90	00:00:00

Arithmetic Mean:	0.03	10.000 Percentile:	0.00
Standard Deviation:	0.07	20.000 Percentile:	0.00
		30.000 Percentile:	0.00
Geometric Mean:	0.00	40.000 Percentile:	0.00
Standard Deviation:	1.00	50.000 Percentile:	0.00
		60.000 Percentile:	0.00
Valid Data:	718	70.000 Percentile:	0.01
Invalid Data:	2	80.000 Percentile:	0.03
Missing Data:	0	90.000 Percentile:	0.07
Data Recovery:	99.72%	100.000 Percentile:	0.60

SITE 1 Averaging Time: 3600 sec

Table 3-19. Precipitation Summary Statistics Site 1

SO2 (PPB) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	3.	09/25/90	06:00:00
Second Highest:	1.	09/24/90	06:00:00
Lowest Value:	0.	09/01/90	00:00:00

Arithmetic Mean:	0.	10.000 Percentile:	0.
Standard Deviation:	0.	20.000 Percentile:	0.
		30.000 Percentile:	0.
Geometric Mean:	0.	40.000 Percentile:	0.
Standard Deviation:	1.	50.000 Percentile:	0.
		60.000 Percentile:	0.
Valid Data:	711	70.000 Percentile:	0.
Invalid Data:	9	80.000 Percentile:	0.
Missing Data:	0	90.000 Percentile:	0.
Data Recovery:	98.75%	100.000 Percentile:	3.

SITE 1 Averaging Time: 3600 sec

Table 3-20. Sulfur Dioxide Summary Statistics Site 1

H2S (PPB) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	3.	09/30/90	12:00:00		
Second Highest:	2.	09/25/90	06:00:00		
Lowest Value:	0.	09/01/90	08:00:00		
Arithmetic Mean:	0.		10.000	Percentile:	0.
Standard Deviation:	0.		20.000	Percentile:	0.
			30.000	Percentile:	0.
Geometric Mean:	0.		40.000	Percentile:	0.
Standard Deviation:	1.		50.000	Percentile:	0.
			60.000	Percentile:	0.
Valid Data:	713		70.000	Percentile:	0.
Invalid Data:	7		80.000	Percentile:	0.
Missing Data:	0		90.000	Percentile:	1.
Data Recovery:	99.03%		100.000	Percentile:	3.

SITE 1 Averaging Time: 3600 sec

Table 3-21. Hydrogen Sulfide Summary Statistics Site 1

3.2 Meteorological Monitoring Data Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET WD (DEG) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	252	241	229	270	273	273	261	296	41	70	80	108	112	101	100	111	97	85	38	53	45	41	50	43
2	41	39	37	345	345	337	321	331	346	355	6	39	44	48	43	40	43	49	28	24	356	347	349	348
3	341	311	306	306	304	308	307	319	347	16	19	49	49	48	51	54	40	33	41	28	320	316	313	340
4	314	324	334	331	330	329	333	329	343	356	14	75	35	56	50	44	39	33	30	28	43	46	58	51
5	39	30	50	43	30	54	26	40	49	51	48	47	45	44	45	50	49	51	43	39	36	26	49	34
6	16	32	336	318	304	308	302	325	22	330	322	7	14	50	49	43	41	37	25	351	338	322	308	321
7	307	302	303	295	313	319	314	346	5	352	10	19	31	35	50	39	43	42	354	322	329	318	285	286
8	286	294	283	295	296	280	312	345	337	14	31	41	85	54	56	7	274	71	28	21	52	34	330	323
9	320	332	328	335	334	338	336	341	348	348	8	18	27	29	35	48	34	37	335	312	290	279	289	311
10	319	329	127	310	307	316	328	348	353	357	40	24	359	16	17	37	40	39	22	347	322	303	307	301
11	296	304	307	311	315	316	349	331	351	353	7	37	35	29	27	22	12	11	352	335	333	321	314	322
12	346	332	323	319	316	310	315	329	344	356	5	4	3	22	43	349	329	26	351	343	326	304	304	300
13	298	302	311	310	308	309	319	331	350	3	30	35	31	36	48	60	49	52	49	358	327	334	316	322
14	313	312	325	342	314	317	327	355	33	59	23	28	36	38	38	34	31	28	23	14	3	353	352	355
15	353	344	356	348	347	343	354	349	352	11	21	21	23	22	26	20	18	352	356	360	349	346	345	335
16	342	340	347	344	342	6	38	339	343	3	1	16	27	25	15	7	3	355	346	345	338	324	323	335
17	332	16	26	3	355	347	341	348	350	351	7	4	3	358	357	355	355	354	354	344	354	346	345	38
18	43	338	324	316	332	317	331	338	330	347	7	10	351	50	43	37	49	53	44	52	47	68	52	26
19	348	326	342	325	314	316	305	304	331	339	353	338	356	12	72	96	104	111	117	109	115	113	106	102
20	124	124	141	139	122	118	111	114	118	114	112	118	127	123	123	129	135	129	135	113	133	111	106	92
21	80	37	10	308	323	319	320	336	321	23	38	38	78	58	53	51	35	31	21	3	354	356	344	346
22	346	342	336	338	337	322	309	322	353	30	42	41	39	31	30	32	345	331	330	334	345	343	323	325
23	318	322	320	334	315	314	312	319	333	37	47	56	41	68	72	66	52	52	71	50	53	41	25	10
24	357	320	299	328	319	306	307	320	343	7	37	36	32	44	46	44	30	37	6	356	326	316	310	317
25	307	304	308	308	311	303	305	311	352	357	29	27	24	64	46	331	2	342	316	334	345	295	296	299
26	305	310	316	319	321	311	317	334	343	357	24	26	30	34	36	32	43	26	19	38	39	14	315	303
27	322	316	298	309	330	332	337	338	359	357	36	40	46	40	31	34	16	5	355	346	340	346	330	331
28	323	323	334	335	334	337	339	341	350	349	1	11	0	24	1	4	358	5	10	5	2	344	332	330
29	319	338	330	343	325	337	326	315	336	344	350	345	3	35	58	43	42	21	6	325	299	294	298	301
30	284	298	308	296	279	283	315	314	348	346	14	72	93	74	50	344	326	330	335	346	328	317	324	334

Table 3-22. Wind Direction Monthly Summary Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET WS (MPH) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1.2	3.0	0.4	0.1	2.5	3.0	0.6	0.1	0.5	3.7	5.9	5.9	8.2	7.3	6.9	5.7	4.1	2.0	0.0	0.8	2.0	2.2	3.1	2.0
2	1.7	2.5	2.0	1.9	2.1	1.7	2.4	1.1	2.5	5.0	5.8	6.6	8.2	7.9	7.8	7.8	6.4	6.3	3.2	1.5	1.1	2.2	2.3	1.7
3	0.4	1.2	2.7	3.0	2.3	3.4	3.2	3.0	3.6	3.3	4.8	6.1	7.7	8.1	7.7	7.4	5.3	4.1	3.8	2.6	3.3	4.2	3.1	1.9
4	3.4	4.2	2.9	3.5	2.8	3.6	4.2	4.1	4.6	3.7	1.6	4.6	5.3	7.3	6.7	6.9	5.0	3.6	3.2	1.9	3.6	6.2	5.8	6.3
5	3.4	3.0	4.3	3.8	2.4	4.4	2.5	3.8	6.3	7.8	7.5	7.9	9.4	8.5	7.8	7.9	7.7	6.9	5.7	3.6	2.6	0.9	1.7	2.0
6	0.6	1.3	0.3	2.8	4.1	3.8	6.0	4.1	2.2	3.7	6.0	4.1	3.6	7.2	7.5	6.3	6.9	4.2	1.9	0.4	1.0	1.4	3.8	3.9
7	5.1	5.4	3.2	3.8	4.7	4.8	4.9	5.8	6.0	6.8	6.6	6.7	7.6	7.2	7.7	7.2	6.0	5.7	2.8	3.4	2.8	2.0	4.1	4.8
8	5.0	3.4	2.4	1.9	2.9	3.1	3.3	0.7	0.9	1.1	1.1	2.5	1.6	1.9	1.3	0.6	0.2	1.5	0.1	0.3	0.6	1.6	0.5	0.0
9	0.3	0.1	2.4	1.0	4.3	6.0	5.4	6.3	7.2	8.1	6.4	6.7	6.5	7.9	7.4	6.0	5.0	4.6	3.2	4.8	5.0	4.1	1.7	4.6
10	3.2	0.8	0.0	0.5	2.2	2.9	5.1	4.3	4.5	5.9	5.9	5.9	5.4	4.1	2.9	5.1	3.6	3.7	1.5	2.5	3.7	4.5	3.7	2.5
11	1.1	3.5	5.7	4.5	4.5	4.6	2.3	3.6	4.1	5.9	5.8	7.0	7.7	7.9	7.2	7.0	7.6	5.4	5.6	5.8	5.7	6.4	5.6	5.7
12	3.8	3.8	5.1	4.4	6.7	6.4	6.3	6.8	9.5	7.4	6.0	6.4	6.8	7.0	6.8	4.2	3.8	3.1	2.5	1.8	4.0	5.1	5.1	4.4
13	3.7	5.2	4.3	4.2	3.7	3.8	4.5	4.5	5.6	4.0	3.8	5.8	6.7	4.8	5.7	6.5	6.0	4.8	4.6	3.1	2.7	3.9	3.7	3.8
14	4.6	5.0	1.5	2.7	3.5	2.3	3.6	4.0	4.4	4.9	4.6	5.0	7.3	8.2	7.8	7.4	6.3	6.5	5.2	4.8	5.1	5.9	6.3	6.1
15	6.4	7.5	6.6	7.5	7.9	8.3	6.4	8.4	8.4	8.0	7.8	8.7	8.7	8.4	8.0	7.3	6.7	8.0	7.1	8.3	9.6	9.3	9.6	8.2
16	7.3	7.8	6.6	7.2	6.9	5.0	7.2	7.7	8.3	7.0	7.1	7.0	8.5	8.2	8.2	8.3	7.3	7.6	8.4	7.4	8.1	6.4	5.0	3.1
17	3.8	3.2	5.4	5.9	7.3	8.5	8.7	9.3	10.2	10.4	9.4	10.9	11.7	12.5	12.0	12.8	11.4	9.7	9.1	10.8	9.5	9.5	6.4	5.1
18	5.1	6.9	6.2	5.8	3.8	5.4	4.3	5.7	6.0	6.7	4.6	5.2	4.5	7.1	6.7	6.4	6.8	6.9	5.3	7.1	5.2	6.1	2.3	0.9
19	0.8	0.2	0.9	0.7	2.1	1.2	1.3	1.8	3.1	3.8	2.3	0.2	0.1	0.5	3.6	7.4	8.4	6.2	3.3	5.9	5.6	3.6	4.1	5.1
20	2.9	4.4	2.4	1.0	1.4	4.6	6.2	5.3	6.3	4.1	4.3	4.6	3.1	2.3	1.9	1.4	4.2	2.7	0.7	0.0	0.0	0.3	0.2	0.1
21	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.3	0.9	5.5	3.1	5.6	6.0	3.6	2.7	0.9	2.1	4.4	4.3	6.6	5.9
22	4.8	5.0	1.2	0.2	0.3	0.1	1.5	0.4	1.5	2.1	3.5	3.2	4.0	4.6	5.5	5.5	5.2	4.6	5.1	5.7	4.6	4.6	5.2	4.2
23	5.6	4.5	5.2	3.9	3.0	3.2	3.5	1.3	2.4	2.0	4.3	4.8	3.3	6.2	7.2	6.0	5.8	5.7	4.0	2.4	3.9	4.2	3.7	3.4
24	1.7	4.0	1.6	1.1	5.4	6.0	4.9	3.0	6.0	4.7	5.3	6.3	5.9	6.7	7.7	7.8	6.3	5.3	2.4	2.3	2.7	3.3	1.5	2.9
25	2.3	1.7	2.4	0.3	0.7	1.1	4.3	2.7	2.4	3.5	4.7	5.6	4.6	4.7	4.1	2.9	3.4	2.6	3.3	2.1	0.9	2.0	1.6	2.7
26	4.0	4.9	3.8	3.5	2.8	4.2	4.8	5.3	7.1	6.4	6.3	7.7	7.1	7.0	7.3	6.7	5.4	2.7	3.2	2.6	5.0	3.6	2.6	1.8
27	1.5	1.4	1.8	0.4	0.8	2.8	4.6	5.6	3.3	4.0	5.8	7.4	8.4	8.2	6.7	7.0	6.0	5.1	4.7	6.1	5.9	4.9	5.9	5.8
28	6.3	6.2	7.6	7.0	6.8	7.4	8.9	10.4	9.3	10.7	7.8	6.9	7.8	8.1	7.8	6.3	7.8	6.7	6.0	1.9	3.5	3.8	5.4	5.9
29	4.4	5.6	6.4	5.2	6.0	6.1	6.8	5.9	7.1	4.7	1.7	1.0	0.6	1.2	2.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
30	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.3	0.3	2.4	6.1	7.4	2.8	0.7	0.1	0.1	0.1	0.0	0.1	0.1	0.1	2.6

Table 3-23. Wind Speed Monthly Summary Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET Sigθ1 (deg) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	14.8	10.8	6.8	12.8	11.6	12.4	11.1	19.0	30.3	25.1	25.1	30.6	25.6	24.0	27.1	29.3	21.3	23.7	28.4	28.5	22.6	22.5	20.7	21.9
2	22.9	22.1	26.5	25.3	29.1	19.3	16.0	28.9	28.2	30.9	28.9	26.0	22.7	21.5	25.8	26.7	21.8	20.2	25.9	28.4	26.2	28.6	28.2	25.2
3	33.5	15.5	13.8	15.2	17.6	14.2	16.5	16.8	26.9	33.5	28.6	27.9	25.3	23.0	22.5	21.2	24.0	26.3	24.3	24.3	15.7	14.9	21.2	32.9
4	14.6	17.0	16.4	14.4	14.7	16.5	16.3	16.9	22.7	32.9	37.8	27.4	28.7	22.6	24.3	24.1	27.6	28.9	27.8	30.7	29.5	23.2	21.4	20.4
5	25.3	27.9	24.5	21.8	28.9	25.2	30.0	32.4	23.5	20.8	22.5	23.5	22.4	21.3	22.9	21.3	21.6	21.2	21.2	24.8	23.2	25.6	27.5	21.3
6	25.9	26.4	23.2	22.9	15.3	18.1	13.9	17.2	41.3	20.4	22.1	29.8	32.9	22.7	22.9	27.6	22.9	25.2	27.1	27.9	19.9	30.2	14.1	17.0
7	14.9	12.8	14.9	16.0	15.7	14.7	14.6	23.5	30.9	31.1	32.2	33.6	28.1	29.3	23.1	26.0	24.9	20.2	23.7	25.9	24.1	46.6	18.7	18.6
8	17.5	24.5	18.5	20.5	17.5	16.4	17.2	32.6	19.2	32.5	35.6	32.9	31.5	40.2	49.8	40.6	47.8	26.0	28.1	35.9	42.1	28.7	25.6	19.4
9	22.7	24.2	23.5	23.6	19.1	17.7	19.7	19.3	23.5	25.9	35.1	34.0	31.9	30.2	30.8	27.9	27.1	22.7	24.1	16.4	16.9	17.0	22.6	14.2
10	13.6	50.5	47.2	36.8	16.5	14.1	16.9	30.4	31.4	30.2	24.8	30.6	27.8	34.6	34.1	21.8	24.3	25.7	29.2	29.2	15.2	13.3	19.9	31.2
11	18.6	41.9	12.7	13.6	20.5	17.6	30.8	19.1	31.2	28.7	32.9	24.5	30.0	28.9	29.8	32.3	30.4	32.3	26.4	19.7	22.6	19.9	15.4	16.1
12	21.8	28.9	18.7	15.0	16.0	15.2	15.5	18.3	21.4	28.9	35.0	28.5	33.7	30.4	29.5	26.3	36.4	29.6	23.0	26.8	32.3	16.9	40.6	32.9
13	40.8	16.8	14.8	14.1	16.6	15.8	16.1	19.4	25.7	29.0	32.3	32.3	26.8	26.4	24.9	21.3	23.1	19.8	20.7	29.0	35.6	21.3	16.4	21.2
14	15.4	15.7	56.6	32.4	25.3	34.2	18.2	32.3	29.8	28.6	28.5	29.0	26.3	24.3	24.2	26.9	28.4	28.9	29.6	31.3	32.4	28.7	28.0	30.2
15	29.7	24.0	27.8	23.2	21.8	20.1	29.1	23.5	27.4	32.8	33.4	31.5	32.2	32.4	31.4	30.7	35.1	26.7	30.8	31.4	25.3	24.3	19.9	17.5
16	21.6	18.3	21.6	22.0	21.9	33.3	25.4	19.3	22.1	32.3	30.8	35.3	31.5	30.9	31.7	32.6	32.8	28.1	21.0	22.1	18.1	21.6	25.2	29.6
17	25.7	31.9	28.7	32.2	31.5	25.1	22.1	24.7	27.6	26.3	35.0	33.3	33.1	29.6	31.2	29.1	29.6	30.1	29.0	21.3	29.2	27.4	23.7	33.0
18	27.6	22.9	18.3	18.0	27.4	19.0	20.3	21.9	23.5	27.4	33.9	33.5	33.4	25.9	26.3	24.0	23.2	23.0	22.9	21.2	24.5	22.0	27.5	28.2
19	27.6	23.5	29.8	25.6	18.0	21.3	22.7	15.8	18.1	24.1	27.0	27.3	33.9	32.2	33.9	27.6	23.6	23.4	29.0	25.9	26.0	25.9	24.7	23.6
20	40.2	28.0	32.2	37.5	29.6	28.4	26.0	27.9	29.1	26.7	27.5	26.8	29.6	27.6	32.0	33.0	29.7	29.1	24.0	49.8	52.3	22.9	21.2	24.8
21	42.6	42.2	28.6	14.2	27.6	21.2	22.1	18.6	21.0	40.1	26.4	29.3	21.9	21.8	20.3	21.0	25.9	25.7	30.4	31.5	27.8	28.4	22.4	25.4
22	24.1	21.2	26.3	17.6	14.9	13.7	15.5	18.0	29.8	30.0	23.6	26.9	22.0	26.3	28.7	27.5	21.8	18.1	17.4	18.7	28.2	26.9	26.7	25.1
23	14.8	14.9	13.9	20.5	15.4	24.7	13.0	14.6	26.0	34.0	28.7	30.1	31.2	23.7	23.1	23.6	21.5	21.5	20.5	21.3	20.8	22.0	27.9	30.0
24	28.4	17.4	31.4	32.8	16.3	15.2	15.4	15.9	22.6	33.6	27.9	27.3	30.0	29.6	23.8	22.9	28.1	23.0	28.9	35.8	16.3	16.6	24.7	12.5
25	15.5	15.4	11.9	13.0	14.2	17.7	13.7	15.5	28.1	27.8	30.9	29.1	30.8	24.6	24.7	22.1	24.2	23.8	16.8	24.0	20.5	20.2	28.7	16.0
26	13.6	12.7	13.0	14.1	15.4	13.5	14.2	16.9	22.6	30.2	32.5	30.0	31.5	28.0	27.9	26.2	23.5	30.0	30.1	28.2	24.8	26.0	15.9	26.7
27	30.7	18.1	14.7	19.3	31.5	19.3	23.0	21.3	30.1	32.2	28.5	26.0	22.1	26.2	28.5	27.4	32.5	31.8	27.1	24.0	18.1	27.8	17.9	16.8
28	16.5	16.3	16.9	17.1	18.0	17.7	17.5	17.5	25.2	23.6	30.3	33.5	35.7	30.0	31.5	33.9	31.1	32.5	33.3	33.3	35.5	22.7	18.6	15.3
29	15.9	18.8	16.6	19.3	17.2	17.0	16.8	16.5	15.4	26.0	34.2	28.9	31.5	23.2	24.7	32.4	25.4	31.2	34.4	16.8	19.1	18.5	18.6	13.2
30	21.9	16.6	14.6	15.3	18.0	28.1	19.2	15.3	24.7	26.5	30.6	34.8	22.3	20.3	22.9	21.0	24.5	18.2	18.1	37.3	16.3	16.8	16.3	16.4

Table 3-24. Sigma Theta Monthly Summary Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET VWS (MPH) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0
2	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	-0.2	-0.1	-0.1	0.1	0.1	0.1	0.0	0.0	0.1
3	0.0	0.1	0.3	0.3	0.1	0.2	0.2	0.1	0.1	-0.2	0.0	-0.2	-0.3	-0.2	-0.2	-0.2	0.0	0.0	-0.1	0.0	0.1	0.1	0.2	0.0
4	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.0	-0.1	0.0	-0.3	-0.1	0.0	-0.1	0.0	0.1	0.0	-0.1	0.0	-0.2	0.0
5	0.1	0.1	0.0	0.0	0.0	-0.1	0.1	-0.1	-0.2	-0.2	-0.1	-0.2	0.0	0.0	-0.1	-0.2	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.1
6	0.1	0.1	0.1	0.1	0.2	0.1	0.4	0.1	0.1	0.2	0.1	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.1
7	0.4	0.5	0.1	0.0	0.2	0.1	0.2	0.1	0.0	0.0	0.1	0.0	-0.2	-0.1	-0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	-0.1	-0.2
8	0.0	0.0	-0.3	-0.2	-0.1	-0.1	0.1	0.0	0.2	0.0	-0.1	-0.1	-0.1	-0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
9	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.0	-0.1	-0.2	-0.1	0.0	0.0	-0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.1
10	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.2	-0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0
11	-0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.0	0.1	0.0	-0.1	0.0	-0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.2	0.1
12	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.2	0.0	-0.1	0.2	0.2	-0.2	-0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.2
13	0.1	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.1	0.0	-0.1	-0.2	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.1	0.1
14	0.2	0.3	0.1	0.1	0.2	0.1	0.2	0.1	0.0	-0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.2
15	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.3	0.2	0.3	0.0	0.0	-0.1	-0.1	0.0	-0.1	-0.1	0.2	0.1	0.1	0.2	0.1	0.3	0.1
16	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.0	0.2	-0.2	0.0	0.1	0.1	0.0	0.0	0.2	0.3	0.2	0.2	0.2	0.2	0.2
17	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.3	0.1	0.1	0.0	-0.1	0.2	0.0	0.0	0.0	0.1	-0.1	0.2	0.4	0.2	0.2	0.1	0.0
18	-0.1	0.2	0.1	0.2	0.1	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	0.1	0.2
19	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.2	0.1	0.1	0.0	0.1	-0.2	-0.2	0.0	0.1	0.1	-0.1	0.1	0.1	0.0	-0.1
20	0.1	0.1	0.2	0.3	0.1	0.2	0.0	0.0	0.2	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0	0.1	0.1	-0.2	-0.1	-0.2	-0.1	0.0	0.2	0.0	0.1	0.2	0.1	0.2	0.2
22	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2
23	0.3	0.2	0.1	0.1	0.3	0.3	0.4	0.3	0.1	0.0	0.0	0.0	0.0	-0.3	-0.3	-0.2	0.0	-0.1	-0.2	0.0	-0.1	0.1	0.2	0.1
24	0.0	0.2	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	-0.2	-0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
25	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	-0.1	-0.1	0.1	0.1	0.0	0.1	0.1	0.1	-0.2	0.0	0.0
26	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	-0.1	0.0	-0.1	0.1	-0.1	0.0	0.1	0.0	0.0	0.1	0.2	0.0
27	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	-0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.1	0.2	0.1	0.0
28	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.1	-0.2	0.0	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1
29	0.1	0.1	0.0	0.2	0.1	0.0	0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	-0.1	0.0	0.0
30	-0.1	0.0	0.1	0.1	-0.1	0.0	0.1	0.3	0.2	0.2	0.2	-0.1	-0.2	-0.3	-0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.2	0.2	0.2

Table 3-25. Vertical Wind Speed Monthly Summary Site 2

MONTHLY SUMMARY REPORT

TRUE GEOTHERMAL

LOCATION: SITE 2, MET SIG W (DEG) DATA FOR: SEP 1990

HOURS (HST)

HR-END DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	0.1	0.1	0.0	0.0	0.2	0.2	0.1	0.1	0.2	0.3	0.5	0.6	0.8	0.7	0.7	0.7	0.5	0.3	0.2	0.2	0.4	0.4	0.4	0.3
2	0.3	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.4	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.6	0.6	0.5	0.4	0.3	0.3	0.3	0.3
3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.6	0.5	0.4	0.3	0.4	0.4	0.3
4	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.4	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.5	0.7	0.6	0.7
5	0.4	0.6	0.5	0.6	0.4	0.5	0.6	0.5	0.7	0.7	0.7	0.8	1.0	0.9	0.8	0.8	0.8	0.6	0.6	0.5	0.4	0.3	0.3	0.3
6	0.2	0.3	0.1	0.3	0.4	0.4	0.5	0.3	0.4	0.4	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.6	0.4	0.1	0.1	0.2	0.3	0.3
7	0.5	0.4	0.3	0.4	0.3	0.3	0.3	0.6	0.8	0.7	0.8	0.8	0.9	0.9	0.7	0.8	0.7	0.6	0.4	0.3	0.4	0.3	0.4	0.4
8	0.4	0.3	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.3	0.2
9	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8	0.9	0.8	1.1	1.0	0.7	0.7	0.5	0.3	0.4	0.5	0.4	0.2	0.3
10	0.3	0.1	0.0	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.2
11	0.2	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.5	0.6	0.9	0.8	0.9	0.9	1.0	1.0	1.1	0.9	0.8	0.4	0.5	0.6	0.5	0.4
12	0.6	0.4	0.4	0.4	0.6	0.5	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.9	0.7	0.5	0.4	0.5	0.2	0.3	0.4	0.5	0.5	0.4
13	0.4	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.6	0.5	0.6	0.7	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.4
14	0.4	0.5	0.3	0.3	0.4	0.3	0.3	0.6	0.6	0.5	0.6	0.6	0.9	0.8	0.9	0.8	0.8	0.9	0.8	0.7	0.7	0.7	0.6	0.7
15	0.7	0.6	0.7	0.6	0.6	0.6	0.6	0.8	0.9	1.3	1.0	1.1	1.2	1.2	1.1	1.2	1.0	0.9	0.9	1.1	0.8	0.7	0.8	0.7
16	0.6	0.5	0.6	0.6	0.5	0.6	0.9	0.6	0.6	0.9	0.9	1.1	1.0	1.2	1.1	1.0	1.0	0.8	0.7	0.6	0.6	0.6	0.5	0.4
17	0.4	0.5	0.7	0.8	0.8	0.7	0.7	0.9	0.9	1.0	1.4	1.4	1.5	1.5	1.3	1.3	1.2	0.9	1.0	0.8	0.9	0.9	0.6	0.6
18	0.5	0.6	0.5	0.5	0.4	0.5	0.4	0.5	0.6	0.6	0.6	0.8	0.6	0.7	0.8	0.8	0.7	0.7	0.7	0.8	0.6	0.6	0.4	0.4
19	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.5	0.5	0.5	0.5	0.3	0.3	0.4	0.5	0.7	0.8	0.7	0.6	0.7	0.8	0.7	0.6	0.6
20	0.7	0.8	0.7	0.6	0.6	0.8	0.8	0.7	0.9	0.7	0.7	0.6	0.7	0.5	0.7	0.6	0.7	0.5	0.3	0.1	0.1	0.3	0.3	0.1
21	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.6	0.6
22	0.4	0.5	0.4	0.3	0.3	0.3	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4
23	0.5	0.4	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.5	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.5	0.6	0.6
24	0.4	0.4	0.3	0.5	0.5	0.5	0.4	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.6	0.3	0.3	0.2	0.3	0.2	0.2
25	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.5	0.4	0.3	0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.4
26	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.7	0.7	0.8	1.0	0.9	0.8	0.8	0.8	0.6	0.5	0.6	0.5	0.7	0.5	0.3	0.2
27	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.9	0.8	0.9	0.9	0.8	0.8	0.9	0.6	0.6	0.4	0.6	0.5	0.4
28	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.7	0.9	1.1	0.9	0.8	0.9	1.1	1.0	0.8	0.9	0.8	0.8	0.5	0.6	0.4	0.4	0.4
29	0.4	0.4	0.5	0.4	0.6	0.5	0.6	0.5	0.6	0.5	0.5	0.4	0.5	0.4	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2
30	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.3	0.4	0.4	0.4

Table 3-26. Sigma W Monthly Summary Site 2

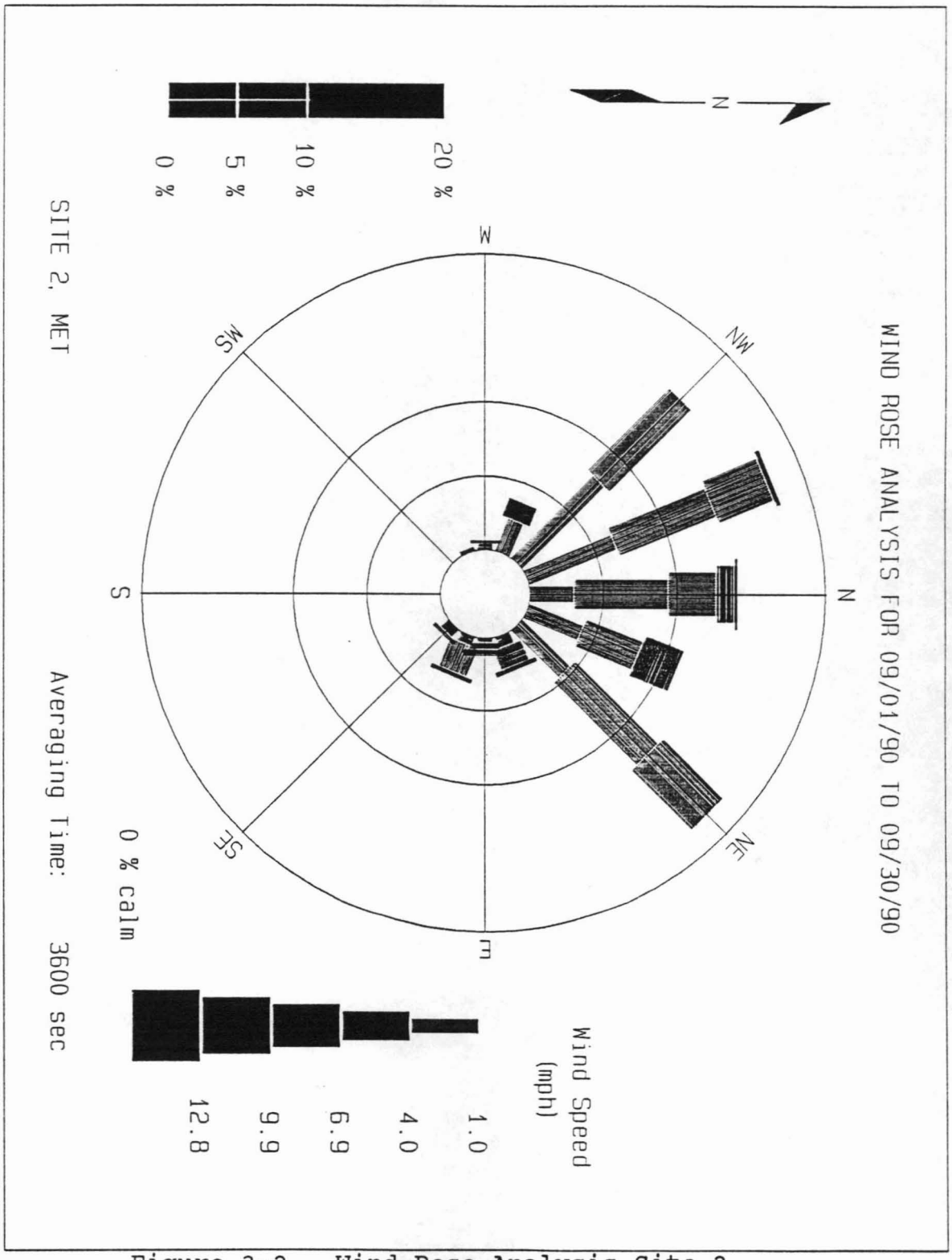

Figure 3-2. Wind Rose Analysis Site 2

WD (DEG) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	360.	09/15/90	19:00:00		
Second Highest:	359.	09/27/90	08:00:00		
Lowest Value:	0.	09/28/90	12:00:00		
Arithmetic Mean:	197.		10.000	Percentile:	22.
Standard Deviation:	144.		20.000	Percentile:	36.
			30.000	Percentile:	45.
Geometric Mean:	111.		40.000	Percentile:	80.
Standard Deviation:	4.		50.000	Percentile:	296.
			60.000	Percentile:	314.
Valid Data:	720		70.000	Percentile:	325.
Invalid Data:	0		80.000	Percentile:	337.
Missing Data:	0		90.000	Percentile:	347.
Data Recovery:	100.00%		100.000	Percentile:	360.

SITE 2, MET Averaging Time: 3600 sec

Table 3-27. Wind Direction Summary Statistics Site 2

WS (MPH) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	12.8	09/17/90	15:00:00		
Second Highest:	12.5	09/17/90	13:00:00		
Lowest Value:	0.0	09/01/90	18:00:00		
Arithmetic Mean:	4.4		10.000	Percentile:	0.6
Standard Deviation:	2.6		20.000	Percentile:	1.9
			30.000	Percentile:	2.8
Geometric Mean:	3.0		40.000	Percentile:	3.7
Standard Deviation:	3.4		50.000	Percentile:	4.4
			60.000	Percentile:	5.1
Valid Data:	720		70.000	Percentile:	6.0
Invalid Data:	0		80.000	Percentile:	6.7
Missing Data:	0		90.000	Percentile:	7.7
Data Recovery:	100.00%		100.000	Percentile:	12.8

SITE 2, MET Averaging Time: 3600 sec

Table 3-28. Wind Speed Summary Statistics Site 2

Sigé1 (deg) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	56.6	09/14/90	02:00:00		
Second Highest:	52.3	09/20/90	20:00:00		
Lowest Value:	6.8	09/01/90	02:00:00		
Arithmetic Mean:	24.8		10.000	Percentile:	15.7
Standard Deviation:	6.9		20.000	Percentile:	18.0
			30.000	Percentile:	21.2
Geometric Mean:	23.8		40.000	Percentile:	22.9
Standard Deviation:	1.3		50.000	Percentile:	24.7
			60.000	Percentile:	26.7
Valid Data:	720		70.000	Percentile:	28.5
Invalid Data:	0		80.000	Percentile:	30.2
Missing Data:	0		90.000	Percentile:	32.6
Data Recovery:	100.00%		100.000	Percentile:	56.6

SITE 2, MET Averaging Time: 3600 sec

Table 3-29. Sigma Theta Summary Statistics Site 2

VWS (MPH) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	0.5	09/07/90	01:00:00		
Second Highest:	0.4	09/06/90	06:00:00		
Lowest Value:	-0.3	09/04/90	13:00:00		
Arithmetic Mean:	0.1		10.000	Percentile:	-0.1
Standard Deviation:	0.1		20.000	Percentile:	0.0
			30.000	Percentile:	0.0
Geometric Mean:	0.0		40.000	Percentile:	0.0
Standard Deviation:	1.0		50.000	Percentile:	0.1
			60.000	Percentile:	0.1
Valid Data:	720		70.000	Percentile:	0.1
Invalid Data:	0		80.000	Percentile:	0.2
Missing Data:	0		90.000	Percentile:	0.2
Data Recovery:	100.00%		100.000	Percentile:	0.5

SITE 2, MET Averaging Time: 3600 sec

Table 3-30. Vertical Wind Speed Summary Statistics Site 2

SIG W (DEG) SUMMARY STATISTICS FOR 09/01/90 - 09/30/90

Highest Value:	1.501	09/17/90	12:00:00		
Second Highest:	1.462	09/17/90	13:00:00		
Lowest Value:	0.040	09/01/90	02:00:00		
Arithmetic Mean:	0.524		10.000	Percentile:	0.257
Standard Deviation:	0.244		20.000	Percentile:	0.316
			30.000	Percentile:	0.375
Geometric Mean:	0.000		40.000	Percentile:	0.435
Standard Deviation:	1.000		50.000	Percentile:	0.494
			60.000	Percentile:	0.573
Valid Data:	720		70.000	Percentile:	0.632
Invalid Data:	0		80.000	Percentile:	0.731
Missing Data:	0		90.000	Percentile:	0.849
Data Recovery:	100.00%		100.000	Percentile:	1.501

SITE 2, MET Averaging Time: 3600 sec

Table 3-31. Sigma W Summary Statistics Site 2

MEASUREMENT TECHNOLOGIES

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